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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,387	Applicant(s) HJELMROTH ET AL.	
	Examiner Anca Eoff	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 and 42-51 is/are pending in the application.
- 4a) Of the above claim(s) 18-32 and 42-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 33-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/15/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-17 and 33-40 are pending in the application. Claims 18-32 and 42-51 are withdrawn. Claim 41 is canceled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless
-(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4-14, 16, 33-36 and 38-39 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matzinger et al. (US Patent 6,376,611).

With regard to claims 1 and 9, Matzinger et al. disclose an ink composition comprising one or more hybrid polymers (abstract). The ink is applied on a substrate (column 3, lines 12-13). The ink should dry quickly onto the printed substrate as well as adhere well to said substrate (column 7, lines 4-8).

One of the hybrid polymers used for the ink composition is an acrylamide/acrylic acid polymer (column 5, lines 12-13).

The ink applied on a substrate of Matzinger et al. is equivalent to the lithographic printing form of the instant application.

Claims 2 and 10 are product-by-process claims.

Claims 2 and 10 refer to the amide monomer of the polymer of claims 1 and 9 and introduce the limitation "wherein the amide is made from an amine selected from the group consisting of ammonium, an alkyl amine and a dialkyl amine" The process limitation does not give any patentable weight to the claimed product.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

Since Matzinger et al. disclose an acrylamide/acrylic acid copolymer used as hybrid polymer in the ink composition, it is the examiner's position that the hybrid polymer of Matzinger et al. is identical to the polymer in the instant application. In the alternative, the polymer of the instant application is obvious over the hybrid polymer of Matzinger et al.

With regard to claims 4 and 11, Matzinger et al. further disclose that the hybrid polymer may be an acrylamide/acrylic acid copolymer

With regard to claims 5, 12, 34-35 and 38-39, Matzinger et al. further disclose that the preferred polymers in the ink composition have weight average molecular weights in the range of 500 to 250,000 g/mol (column 5, lines 29-30).

With regard to claims 6-7 and 13-14, Matzinger et al. further disclose that the ink composition comprises 0.1 to 30 wt.% of a dye/coloring agent (column 4, lines 41-42). Fine particles of metal or metal oxide, such as titania may be included as colorants in the composition (column 4, lines 43-47).

With regard to claims 8, 16, 33 and 36, Matzinger et al. further disclose that the ink composition can be applied to substrates such as aluminum or metal (column 7, lines 29-32).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 6, 8-11, 13, 15-17, 33, 36-37 and 40 are rejected under 35 U.S.C. 103(a) as obvious over Frenkel et al. (WO 01/34394) in view of Zou et al. (US Pat 5,981,625) and Hansen et al. (US Patent 4,598,118).

With regard to claims 1 and 9, Frenkel et al. disclose an inkjet fluid that can be easily dried on an uncoated lithographic plate (abstract). The inkjet fluid comprises a two-phase emulsion system: an oleophilic inner phase and a continuous, aqueous external phase (abstract), wherein the internal phase is a polymer (page 9, lines 4-5). The above-mentioned polymer can be a copolymer of urethane (which comprise amide groups in the structure), styrene, acrylates, methacrylates (page 9, lines 4-15).

Frenkel et al. do not define the terms "acrylates" or "methacrylates" but in the examples they use the compound Joncryl 538 (Example 1, pages 10-11) and Joncryl 537 (example 2, page 11). Joncryl 538 is known in the art as being a styrene-acrylic acid copolymers, as evidenced by Zou et al. (column 19, lines 1-2).

Joncryl 537 is known in the art as a copolymer comprising styrene, 2-ethylhexyl acrylate, α -methyl styrene and acrylic acid repeating units, as evidenced by Hansen et al. (column 5, lines 40-45)

Therefore, it would have been obvious to one of ordinary skill in the art to use an acrylic acid as 'acrylate monomer" for an acrylate/urethane copolymer for the inkjet fluid composition of Frenkel et al., as taught in Frenkel et al., page 9, lines 4-15.

Frenkel et al. disclose that the inkjet fluid is ejected in a stream of drops onto the surface of a printing plate. After said fluid is deposited onto the printing plate, a drying system is used to heat the printing plate to evaporate any water remaining on the surface of the printing plate and to fuse the resins to the substrate of the printing plate (page 7, lines 13-19).

Claims 2 and 10 are product-by-process claims.

Claims 2 and 10 refer to the amide monomer of the polymer of claims 1 and 9 and introduce the limitation "wherein the amide is made from an amine selected from the group consisting of ammonium, an alkyl amine and a dialkyl amine" The process limitation does not give any patentable weight to the claimed product.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of

a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

The polymer of the instant application is anticipated by the copolymer comprising urethane and acrylic acid, as disclosed by modified Frenkel. In the alternative, the polymer of the instant application is obvious over the copolymer comprising urethane and acrylic acid, as disclosed by modified Frenkel.

With regard to claim 3, Frenkel et al. disclose that the inkjet fluid is dried on the substrate (page 7, lines 17-19).

With regard to claims 4 and 11, the copolymers of Frenkel et al comprise acrylic acid, as shown above.

With regard to claims 6 and 13, Frenkel et al. further disclose that the inkjet fluid comprises up to 15 wt. % of carbon black as coloring matter to make the image on the plate visible (page 9, lines 24-27).

With regard to claims 8, 16, 33 and 36, Frenkel et al. disclose that the substrate is an aluminum plate (Example 1, pages 10-11).

With regard to claims 15, 17, 37 and 40, Frenkel et al. disclose that a drying system is used to heat the printing plate to evaporate any water remaining on the surface of the printing plate and to fuse the resins to the substrate of the printing plate (page 7, lines 13-19).

Frenkel et al. also disclose that it is possible to improve the abrasion resistance of the jetted image to increase run length by heating the image-bearing printing plate up to approximately 200°C to increase the crosslinking in the polymer (page 10, lines 3-6).

Response to Arguments

6. Applicant's arguments filed on October 15, 2007 have been fully considered but they are not persuasive.

The applicant argues that Matzinger et al. disclose an ink composition applied to a substrate such as aluminum, the substrate representing the final surface to be printed not a lithographic printing form that is in turn used to print a final surface while in the instant application the substrate is not a final printed surface but a "printing form" useful in the transfer of the desired print to a final printed surface

The examiner would like to show that the process of using the lithographic printing form in a printing process is not claimed in the instant application.

While the inks of Matzinger et al. are indeed "hot melt inks", they comprise the same compounds as the inks of the instant application (acrylamide/acrylic acid polymers, dyes/coloring agents, waxes –column 3, line 59, column 3, line 64 and column 5, lines 12-13) and they are applied to substrates such as aluminum or metal (column 7, lines 29-32), same as the inks of the instant application.

Matzinger et al. further disclose that the substrates having the inks applied thereof are dried (column 1, line 51 and column 7, lines 4-5) and the ink adheres to the substrate (column 1, lines 51-52 and column 7, lines 4-8).

It is the examiner's position that the substrate having the ink deposited thereon of Matzinger et al. is equivalent to the lithographic printing form of the instant application, since they have the same structure (an aluminum or metal substrate having a dried and hardened ink layer deposited thereon) and they are made in a similar way (application of ink followed by a drying step).

Conclusion

7. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on October 15, 2007 prompted the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anca Eoff whose telephone number is 571-272-9810. The examiner can normally be reached on Monday-Friday, 6:30 AM-4:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Cynthia Kelly